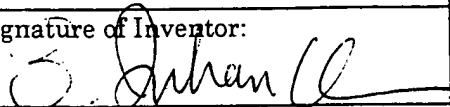

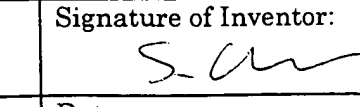


APPLICATION FOR UNITED STATES PATENT
DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I declare that my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor if only one name is listed below, or an original, first and joint inventor if plural inventors are named below, of the subject matter which is claimed and for which a patent is sought on the invention entitled as set forth below, which is described in the attached specification; that I have reviewed and understand the contents of the specification, including the claims, as amended by any amendment specifically referred to in the oath or declaration; that no application for patent or inventor's certificate on this invention has been filed by me or my legal representatives or assigns in any country foreign to the United States of America; and that I acknowledge my duty to disclose information which is material to the patentability of this application in accordance with Title 37, Code of Federal Regulations, section 1.56;

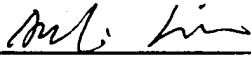
I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

TITLE OF INVENTION: Defective Pixel Filtering for Digital Imagers		
POWER OF ATTORNEY: I HEREBY APPOINT THE FOLLOWING ATTORNEYS TO PROSECUTE THIS APPLICATION AND TRANSACT ALL BUSINESS IN THE PATENT AND TRADEMARK OFFICE CONNECTED THEREWITH.		
<p align="center">Christopher L. Maginniss, Reg. No. 30,288 Mark E. Courtney, Reg. No. 36,491 W. James Brady, Reg. No. 32,080 Richard L. Donaldson, Reg. No. 25,673 William B. Kempler, Reg. No. 28,228 Jay M. Cantor, Reg. No. 19,906</p>		
SEND CORRESPONDENCE TO:		DIRECT TELEPHONE CALLS TO:
<p>Christopher L. Maginniss Texas Instruments Incorporated PO Box 655474, M/S 3999 Dallas, TX 75265</p>		<p>Christopher L. Maginniss (972) 917-4259</p>
NAME OF INVENTOR: (1)	NAME OF INVENTOR: (2)	NAME OF INVENTOR: (3)
Zhiliang Julian Chen	Eugene G. Dierschke	Steven Derek Clynes
RESIDENCE (City and State Only)	RESIDENCE (City and State Only)	RESIDENCE (City and State Only)
Plano, Texas	Dallas, Texas	Allen, Texas
Post Office Address: 3417 Walington Drive Plano, Texas 75093	Post Office Address: 6709 Leameadow Drive Dallas, Texas 75248	Post Office Address: 1222 Aberdeen Drive Allen, Texas 75002
Country of Citizenship: Peoples' Republic of China	Country of Citizenship: U.S.A.	Country of Citizenship: U.K.
Signature of Inventor:	Signature of Inventor:	Signature of Inventor:
		
Date:	Date:	Date:
12/28/99	01-05-00	2/4/2000

APPLICATION FOR UNITED STATES PATENT

DECLARATION AND POWER OF ATTORNEY

Additional Inventors Supplemental Sheet

NAME OF INVENTOR: (4)	NAME OF INVENTOR: (5)	NAME OF INVENTOR: (6)
Anli Liu		
RESIDENCE (City and State Only)	RESIDENCE (City and State Only)	RESIDENCE (City and State Only)
Plano, Texas		
Post Office Address:	Post Office Address:	Post Office Address:
4804 Portrait Lane Plano, Texas 75024		
Country of Citizenship: Peoples' Republic of China	Country of Citizenship:	Country of Citizenship:
Signature of Inventor: 	Signature of Inventor:	Signature of Inventor:
Date: 01-26-00	Date:	Date:



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JULY 28, 2000

PTAS

TEXAS INSTRUMENTS INCORPORATED
J. DENNIS MOORE
P.O. BOX 655474
DALLAS, TX 75265



101373456A

TI 29034

**UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT**

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/01/2000

REEL/FRAME: 010821/0015
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

CHEN, ZHILIANG JULIAN

DOC DATE: 12/28/1999

ASSIGNOR:

DIERSCHKE, EUGENE G.

DOC DATE: 01/05/2000

ASSIGNOR:

CLYNES, STEVEN DEREK

DOC DATE: 02/09/2000

ASSIGNOR:

LIU, ANLI

DOC DATE: 01/26/2000

ASSIGNEE:

TEXAS INSTRUMENTS INCORPORATED
P.O. BOX 655474
DALLAS, TEXAS 75265

SERIAL NUMBER: 09475652
PATENT NUMBER:

FILING DATE: 12/30/1999
ISSUE DATE:

RECEIVED

AUG 14 2000

BEN KROGER

010821/0015 PAGE 2

SHAREILL COLES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

06-05-2000



FORM PTO-1595

U.S. Department of Commerce
Patent and Trademark Office

TI-29034

101373456

To the Assistant Commissioner for Patents. Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies):</p> <p>Zhiliang Julian Chen 12/28/99</p> <p>Eugene G. Dierschke 1/5/00</p> <p>Steven Derek Clynes 2/9/00</p> <p>Anli Liu 1/26/00</p> <p style="text-align: center; font-size: 1.5em; margin-top: 20px;"><i>M.D. 1.0</i></p>	<p>2. Name and Address of receiving party(ies):</p> <p>Name: TEXAS INSTRUMENTS INCORPORATED</p> <p>Address: P.O. Box 655474, MS 3999</p> <p>City: Dallas</p> <p style="text-align: right;">State: TX Zip: 75265</p> <p>Additional name(s) & address(es) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>				
<p>3. Nature of Conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger</p> <p><input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name</p> <p><input type="checkbox"/> Other _____</p> <p>Execution Date: 12/28/99; 1/5/00; 2/9/00; 1/26/00</p>					
<p>4. Application number(s) or patent number(s).</p> <p><input type="checkbox"/> This document is being filed together with a new application.</p> <p>Execution date of the application: 12/28/99; 1/5/00; 2/9/00; 1/26/00</p> <p>Title: Defective Pixel Filtering for Digital Imagers</p> <p>Docket No: TI-29034</p> <table style="width: 100%;"> <tr> <td style="width: 50%;"> <p>A. Patent Application No.(s)</p> <p>S.N. 09/475,652</p> </td> <td style="width: 50%;"> <p>B. Patent No.(s)</p> <p>X,XXX,XXX</p> </td> </tr> <tr> <td style="text-align: right;">Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> <td style="text-align: right;">Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</td> </tr> </table>		<p>A. Patent Application No.(s)</p> <p>S.N. 09/475,652</p>	<p>B. Patent No.(s)</p> <p>X,XXX,XXX</p>	Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>A. Patent Application No.(s)</p> <p>S.N. 09/475,652</p>	<p>B. Patent No.(s)</p> <p>X,XXX,XXX</p>				
Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Name: J. Dennis Moore, Reg. No. 28,885</p> <p style="padding-left: 20px;">Texas Instruments Incorporated</p> <p>Address: P.O. Box 655474, MS 3999</p> <p>City: Dallas</p> <p>State: TX Zip: 75265</p>	<p>6. Number of applications and patents involved: <u> (1) </u></p> <hr/> <p>7. Amount of fee enclosed or authorized to be charged: \$40</p> <hr/> <p>8. Deposit Account No: 20-0668 (Attach duplicate copy if paying by deposit account)</p>				
<p>DO NOT USE THIS SPACE</p>					
<p>9. Statement and signature.</p> <p style="text-align: center;"><i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i></p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"> <div style="width: 30%;"> <p><u>5/25/00</u></p> <p>Date</p> </div> <div style="width: 60%; text-align: right;"> <p>_____ J. Dennis Moore, Reg. No. 28,885</p> </div> </div> <p style="text-align: center; margin-top: 10px;">Total Number of Pages Including Cover Sheet, Attachments and Document: <u> 5 </u></p>					

TI-29034

03-21-2000

FORM PTO-1595

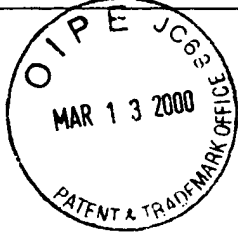
U.S. Department of Commerce
Patent and Trademark Office

To the Honorable Commissioner of Patents

101293391

al documents or copy thereof.

1. Name of conveying party(ies):

Zhiliang Julian Chen
Eugene G. Dierschke
Steven D. Clynes
Anli LiuAdditional name(s) & address(es)
attached? ___ Yes ___ No

3.13.00

2. Name and Address of receiving party(ies):

Name: Texas Instruments Incorporated

Address: P. O. Box 655474, M.S. 3999

City: Dallas

State: Texas Zip: 75265

Additional name(s) & address(es)
attached? ___ Yes ___ No

3. Nature of Conveyance:

☒ X Assignment ☐ Merger

☐ Security Agreement ☐ Change of Name

☐ Other _____

Execution Date : 12/28/99, 01/05/00, 01/26/00, 02/09/00

4. Application number(s) or patent number(s).

If this document is being filed together with a new application, the execution date of the application is:

12/28/99, 01/05/00, 01/26/00, 02/09/00

A. Patent Application No.(s)

B. Patent No.(s)

Additional numbers attached? ___ Yes ___ No

Additional numbers attached? ___ Yes ___ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: W. James Brady III

Address: Texas Instruments Incorporated
P. O. Box 655474, M.S. 3999
City: Dallas

State: Texas Zip: 75265

6. Number of applications and patents involved: 17. Amount of fee enclosed or authorized to be charged: \$40.00

8. Deposit account number : 20-0668

DO NOT USE THIS SPACE

9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Signature

W. James Brady III, Reg. No. 32,080
Name of Person Signing

3/18/00
Date

Total number of pages including cover sheet, attachments and document: 3

ASSIGNMENT

WHEREAS, I, the undersigned inventor (or one of the undersigned joint inventors), of residence as listed, having invented certain new and useful improvements as below entitled, for which application for United States Letters Patent is made, the said application having been executed on the date set forth below; and




WHEREAS, TEXAS INSTRUMENTS INCORPORATED, a corporation organized and existing under the laws of the State of Delaware, with its principal office at 7839 Churchill Way, M.S. 3999, Dallas, Texas 75251, is desirous of acquiring my entire right, title and interest in and to the said invention, and to the said application and any Letters Patent that may issue thereon;

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell and assign to the said TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my entire right, title and interest in and to the said invention and in to the said application and all patents which may be granted therefor, and all divisions, reissues, substitutions, continuations, and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patent resulting therefrom, insofar as my interest is concerned, to the said TEXAS INSTRUMENTS INCORPORATED, as assignee of my entire right, title and interest.

I also hereby sell and assign to TEXAS INSTRUMENTS INCORPORATED, its successors and assigns, my foreign rights to the invention disclosed in said application, in all countries of the world, including the right to file applications and obtain patents under the terms of the International Convention for the Protection of Industrial Property, and of the European Patent Convention, and further agree to execute any and all patent applications, assignments, affidavits, and any other papers in connection therewith necessary to perfect such patent rights.






I hereby further agree that I will communicate to said TEXAS INSTRUMENTS INCORPORATED, or to its successors, assigns, and legal representatives, any facts known to me respecting said invention, and at the expense of said assignee company, testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, reissue and substitute applications, make all lawful oaths, and generally do everything possible to aid said TEXAS INSTRUMENTS INCORPORATED, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

IN WITNESS WHEREOF, I hereunto set hand and seal this day and year;

TITLE OF INVENTION	Defective Pixel Filtering for Digital Imagers		
SIGNATURE OF INVENTOR AND NAME	 Zhiliang Julian Chen	 Eugene G. Dierschke	
DATE	12/28/99	01-05-00	
RESIDENCE (CITY AND STATE)	Plano, Texas	Dallas, Texas	
DATE APPLICATION EXECUTED	12/28/99	01-05-00	
SIGNATURE OF INVENTOR AND NAME	 Steven Derek Clynes	Anli Liu	
DATE	2/9/2000		
RESIDENCE (CITY AND STATE)	Allen, Texas	Plano, Texas	
DATE APPLICATION EXECUTED	2/9/2000		

After recording, return Assignment to: Christopher L. Maginniss
Texas Instruments Incorporated
P.O. Box 655474, M/S 3999
Dallas, TX 75265

TI-29034
Assignment
Page

TITLE OF INVENTION	Defective Pixel Filtering for Digital Imagers		
SIGNATURE OF INVENTOR AND NAME	 Zhiliang Julian Chen	 Eugene G. Dierschke	
DATE	12/28/99	01-05-00	
RESIDENCE (CITY AND STATE)	Plano, Texas	Dallas, Texas	
DATE APPLICATION EXECUTED	12/28/99	01-05-00	
SIGNATURE OF INVENTOR AND NAME		 Anli Liu	
DATE		 01-26-00	
RESIDENCE (CITY AND STATE)	Allen, Texas	Plano, Texas	
DATE APPLICATION EXECUTED		 01-26-00	

After recording, return Assignment to: Christopher L. Maginniss
Texas Instruments Incorporated
P.O. Box 655474, M/S 3999
Dallas, TX 75265